# Non-LASER EM-Based Missile Defense via Continual, High-Intensity Soliton Emission for Disrupting Solid Fuel Combustion in Incoming Missiles; Applications for Space Launch Sabotage

1 March 2024
Simon Edwards
Research Acceleration Initiative

## Introduction

As it was previously published (ibid.) that soliton waves can be used to both increase the volatility of combustion reactions as well as to prevent combustion for the purposes of fighting wildfires by creating a sort of "prevailing wind" which affects protons irrespective of actual wind conditions, it stands to reason that exploiting such an effect could have other applications.

## Abstract

If soliton waves (emitted continually and in rapid succession) are capable of influencing combustion (either encouraging or discouraging it,) these waves may have yet another application in the area of missile defense.

The emission of such soliton waves toward incoming missiles (which generally utilize solid fuel) could have the effect of causing flame-outs of missile engines resulting in splashdown of those missiles, achieving the desired end without the need for high-power light to accurately reach the incoming missiles.

This EM-based defensive approach may be preferable in many respects to a LASER-based defensive system as LASERs, even with upgrades to beam power, collimation and resistance to atmospheric scattering (sc. from helicization) as LASER systems require precise targeting.  In a contested environment, it is possible that LiDARs used to generate targeting data for these advanced LASER systems could be blinded by competing LASER emissions.

Conversely, soliton waves could be emitted over broad areas to great effect and using less electrical power than a LASER without the need for precise targeting data.  Through the induction of engine failure, incoming missiles may be destroyed through indirect means.

Much like a wildfire halted as a result of the direction of the wind shifting back toward already-burned land masses, *soliton waves can prevent the movement of liberated protons toward uncombusted solid fuel from great distances, indirectly resulting in the destruction of the incoming missiles through non-LASER means.*

## Conclusion

Additionally, such emitters might be used for the purposes of sabotaging space launches dependent upon liquid fuel rockets by creating asymmetries of

combustion prompted by lateral emission of such soliton waves. As these waves could be emitted from orbital platforms, apparently organic engine failures could be generated by emission of such waves from orbit as these waves would push protons away from fuel sources, disrupting combustion. Even partial disruption of combustion could reduce net thrust, causing rockets to fail to reach orbit and creating the convincing illusion that manufacturing/design flaws are to blame for failures.